



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,031	03/30/2001	Mark D. Austin	BS01-056	5536

28970 7590 12/09/2004

SHAW PITTMAN  
IP GROUP  
1650 TYSONS BOULEVARD  
SUITE 1300  
MCLEAN, VA 22102

EXAMINER

NGUYEN, LEE

ART UNIT	PAPER NUMBER
----------	--------------

2682

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

9/3

**Office Action Summary**

Application No.

09/821,031

Applicant(s)

AUSTIN ET AL.

Examiner

LEE NGUYEN

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 and 7-39 is/are pending in the application.
- 4a) Of the above claim(s) 39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This action is responsive to the communication filed 08/09/2004.

#### ***Drawings***

1. Figures 1-5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

#### ***Election/Restrictions***

2. Newly submitted claim 39 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: normalizing the strength indicator is distinct from the previous claimed invention.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 39 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-5, 7-8, 17-25, 27-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gutowski in view of Rickli et al. (US 5,481,588).

Regarding claim 1, Gutowski teaches a system for determining mobile communications system carrier propagation characteristics, the system comprising: a frequency scanner to output a carrier signal corresponding to a carrier signal identifier, the frequency scanner being located at a geographical location [0007]; a signal strength measurement device coupled to the frequency scanner to determine a carrier strength indicator of the carrier signal [0007], [0069]; digital verification color code logic coupled to the frequency scanner to determining a digital verification color code of the carrier signal [0069], [0071]; a location determining unit coupled to the frequency scanner to determine a location identifier corresponding to the geographical location of the frequency scanner [0007]; and a memory coupled to the frequency scanner to store the carrier signal identifier, the carrier strength indicator, the digital verification color code of the carrier signal, and the location identifier [0027], [0028].

Gutowski fails to teach that the system further includes a clock to output a time indicator. In an analogous art of drive test, Rickli teaches that for the purpose of statistical evaluation, the GPS receiver of the drive test unit also

include a clock for determining both the geographic position and the exact clock time (abstract, col. 2, 44-59, col. 3, 23-34, col. 5, line 33 through col. 6, line 25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the timer of Rickli to the system of Gutowski so that data can be statistically evaluated.

Regarding claim 2, Gutowski also teaches that the signal strength measurement device is a radio signal strength indicator ("RSSI") determination unit [0007].

Regarding claim 3, Gutowski further teaches that the location determining unit is a global positioning system ("GPS") unit [0007].

Regarding claim 5, Gutowski also teaches that the memory stores the carrier signal identifier, the carrier strength indicator, the digital verification color code of the carrier signal, and the location identifier in a data record of a database [0027], [0028].

Regarding claim 7, Gutowski as modified teaches that the memory stores the time indicator with the carrier signal identifier, the carrier strength indicator, the digital verification color code of the carrier signal, and the location identifier in a data record of a database as claimed.

Regarding claim 8, Gutowski also teaches comprising a processor, wherein the memory stores a plurality of instructions adapted to be executed, the plurality of instructions including instructions to determine carrier propagation characteristics of the carrier signal based at least in part on one or more of the carrier signal identifier, the carrier strength indicator, the digital verification color code of the carrier signal, and the location identifier [0027], 0028].

Regarding claim 17, the claim is interpreted and rejected for the same reason as set forth in claim 1. Gutowski also teaches that it is not necessary to key-up base stations in order to distinguish cell site locations [0072], corresponding to the claimed operating in a standard operation mode.

Regarding claim 18, Gutowski also teaches that the carrier signal is a carrier signal of a control channel [0016], [0069].

Regarding claim 19, Gutowski also teaches that the carrier signal is a carrier signal carrying subscriber communications [0016], [0069].

Regarding claim 20, Gutowski also teaches that the carrier signal is not a test carrier [0072].

Regarding claim 21, Gutowski also teaches that operating a mobile communications system in a standard operational mode includes not transmitting a test carrier [0072].

Regarding claim 22, Gutowski also teaches that the test carrier is a keyed-up carrier that does not carry subscriber communications [0072].

Regarding claim 23, Gutowski also teaches that determining the source of the received carrier signal includes decoding a digital verification color code of the received carrier [0069].

Regarding claim 24, Gutowski also teaches that determining the source of the received carrier includes determining that the received carrier has a received signal strength that is at least approximately the same as a received carrier from a known source [0069].

Regarding claim 25, Gutowski also teaches that determining the source of the received carrier includes determining that the received carrier has a received signal strength that is not at least approximately the same as a received carrier from a known source [0071].

Regarding claim 28, the claim is interpreted and rejected for the same reason as set forth in claim 1.



Regarding claim 29, the claim is interpreted and rejected for the same reason as set forth in claim 17.

Regarding claim 30, the claim is interpreted and rejected for the same reason as set forth in claim 20.

Regarding claim 31, the claim is interpreted and rejected for the same reason as set forth in claims 18-19.

Regarding claim 32, the claim is interpreted and rejected for the same reason as set forth in claim 28.

Regarding claim 33, the claim is interpreted and rejected for the same reason as set forth in claim 17.

Regarding claim 34, the claim is interpreted and rejected for the same reason as set forth in claim 20.

Regarding claim 35, the claim is interpreted and rejected for the same reason as set forth in claim 28.

Regarding claim 36, the claim is interpreted and rejected for the same reason as set forth in claim 17.

Regarding claim 37, the claim is interpreted and rejected for the same reason as set forth in claim 20.

Regarding claim 38, the claim is interpreted and rejected for the same reason as set forth in claim 28.

Regarding claim 4, Gutowski fails to teach that the location determining unit is a Loran unit. It is taken official notice that the art of using GPS or Loran to determine the location of a mobile unit is conventionally well known. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include Loran determining unit into the system of Gutowski where GPS system is not available.

Regarding claim 27, Gutowski fails to teach that the determining the source of the received carrier includes determining the time delay of the received carrier. It is taken official notice that the art of using time delay in order to identify a carrier is conventionally well known. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply time delay to the system of Gutowski in order to determine the source with more accuracy.

6. Claims 9-13, 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gutowski in view of Rickli as applied to claim 1 above and further in view of Arpee et al. (US 6,711,404).

Regarding claim 9, the claim is interpreted and rejected for the same reason as set forth in claim 1. The system of Gutowski, however, is used to determine propagation characteristics of sectors in cell sites. Gutowski fails to teach that the propagation characteristics determination is used for cell sites. In an analogous art, Arpee teaches a drive test that involves determination propagation characteristics of plurality of cell sites (col. 4, line 36 through col. 5, line 19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Arpee to the system of Gutowski in order to determine propagation characteristics of not only sectors of cell sites but also the cell sites thereby enhancing communication quality of the whole cellular network.

Regarding claim 10, the claim is interpreted and rejected for the same reason as set forth in claim 1.

Regarding claim 11, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Regarding claim 12, the claim is interpreted and rejected for the same reason as set forth in claim 8.

Regarding claim 13, Gutowski as modified also teaches that the cell site identifier comprises a digital color verification code and the signal identifier includes digital color verification code decoding logic, [0069] of Gutowski and col. 5, lines 13-19 of Arpee.

Regarding claim 15, the claim is interpreted and rejected for the same reason as set forth in claim 3.

Regarding claim 16, the claim is interpreted and rejected for the same reason as set forth in claim 4.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gutowski in view of Rickli and Arpee as applied to claim 9 above, and further in view of Munday et al. (US 6,201,803).

Regarding claim 14, Gutowski as modified fails to teach that the cell site identifier comprises a Short Messaging Service ("SMS") cell site identifier code and the signal identifier includes SMS decoding logic. In order to identify the cell site identifier Munday teaches that short message service (SMS) can be used (col. 9, lines 3-17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to

provide the teaching of Munday to the system of Gutowski because it is less prone to use SMS than cell broadcast messages.

8. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gutowski in view of Rickli as applied to claim 17 above and further in view of Munday et al. (US 6,201,803).

Regarding claim 26, Gutowski fails to teach that the cell site identifier comprises a Short Messaging Service ("SMS") cell site identifier code and the signal identifier includes SMS decoding logic. In order to identify the cell site identifier Munday teaches that short message service (SMS) can be used (col. 9, lines 3-17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Munday to the system of Gutowski because it is less prone to use SMS than cell broadcast messages.


### ***Response to Arguments***

9. Applicant's arguments with respect to claims 1-38 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEE NGUYEN whose telephone number is (703)-308-5249. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VIVIAN CHIN can be reached on (703) 308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 12/5/04  
LEE NGUYEN  
Primary Examiner  
Art Unit 2682